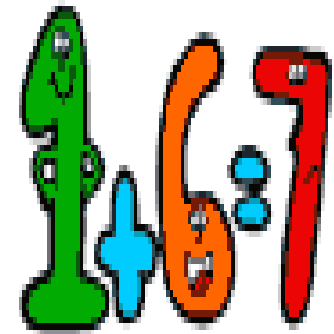




# Summer Math

(Entering)

## First Grade



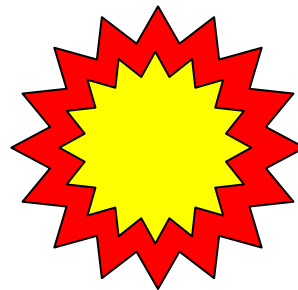
Brookline

**Directions:** Complete **any 20** math boxes each month. Color in the box after your complete it. Return the calendar grid to your new first grade teacher in September.

### **BOOKS TO READ THIS SUMMER**

- ▼ Benny's Pennies by Pat Brisson
- ▼ Pattern Fish: by Trudy Harris
- Inch by Inch: by Leo Leonni
- ▼ Ten Flashing Fireflies by Philemon Sturges
- Two Ways to Count to Ten by Ruby Dee

- Book is available through Brookline's public libraries.
- ▼ Book is available through the Minuteman library network.



ATTACH YOUR MATH  
CALENDAR BELOW

### **GAMES TO PLAY WITH FRIENDS OR FAMILY**

Compare or Double Compare\*

Collect 20¢\*

Turn Over 10 (or 6)\*

*\*Directions for above games are included*

Δ*The games below are available at stores*

Uno

Monopoly Junior

Mancala

Blink

Dominoes

Toot & Otto

Batik

# Brookline's First Grade Calendar - July

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Sort the laundry (by owner, by color, by size, or by item type) Who in your family has the most socks in this load?	Draw a picture using 2 circles, 3 triangles, and 1 rectangle. Count the # of sides and the # of corners in your picture.	Play a game again with a friend.  Did you use a strategy? Tell someone about it.	Take a handful of coins; count the number of pennies, nickels, dimes and quarters. How many of each do you have? Draw a pictograph to record the # of each coin you found.	Swing 100 times or jump 100 times.  How long did it take?	Read ▼ <u>Benny's Pennies</u> by Pat Brisson. What would (or could) you do with your pennies if you had some?	Keep track of the weather this week. How many sunny days? Rainy days? Cloudy days? How many more sunny days than rainy days?
Play the game <b>Turn Over 10</b> (or 6). Practice skip counting by 2s to 40 (2, 4, 6, ...) Practice skip counting by 5s to 50. (5, 10, 15, 20,...)	Play <b>Turn Over 10</b> (or 6) again. This time write down all the possible combinations that equal 10 (or 6).	Help set the table for a meal. How many people are there? How many forks, spoons, and knives do you need altogether? Count all the utensils by 2.	Count 100 objects (example: Cheerios, raisins, or rocks). How many ways can you group your objects? By 2's, 5's, and 10's	Read ● <u>Inch by Inch</u> by Leo Leonni.  What part of your body can you use to measure?	Look in your food storage. Find 5 boxes of different sizes in your kitchen (cereal? pasta?). Line them up from tallest to shortest. Now, line them up from thickest to thinnest.	Take a walk outside. Survey on paper how many insects, birds, and mammals you see. What did you see most of?
Read ▼ <u>Pattern Fish</u> by Trudy Harris  Draw, build or sing your own pattern.	Make a repeating pattern with seeds (or flowers on a piece of masking tape (sticky side up). Put the sticky ends together to make a bracelet.	Play <b>Concentration</b> on the web♦ with <i>numbers 1-10</i> . Record your matches.  ♦ illuminations.nctm.org Click on ACTIVITIES. K-2. Search.	Play a number game with a friend.  Practice your +2 facts. 1+2, 2+2, 3+2, 4+2... Do you count on?	Play the same number game again. This time record the numbers (or number combinations).	Bring many sizes of containers to a sand or dirt place. Fill them up and compare their weights and the castles they make. Which is highest?	Time your transitions by counting backwards. "I will finish putting my shoes on in 20 seconds. 20,19,18..."
Build a structure with blocks or Lego's. Tell someone about the shapes you have made. Now separate the structure in 3 parts. How many blocks/legos are in each part?	Practice counting on from numbers other than one. Start at 4... Start at 17... Start at 32... Count backward!	Read a book of your choice. How many pages are there? How many pages are there if you add 10 more? How about 10 less?	Go to a store or market with an adult. Make a list of all the fruits you would eat. Sort them by color. Make a graph to show your sorting.	Count how many steps it takes to get from your room to the kitchen. Then try giant steps. How many more regular steps did it take?	Play <b>Five Frame</b> on the web. ♦ Games: <i>Fill a Frame</i> Record all the number sentences with a sum of five. ♦ illuminations.nctm.org Click on ACTIVITIES. K-2. Search.	Play a game that uses dice. Practice your addition facts that equal 6. 2+4, 3+3...Are there more?

PARENT SIGNATURE: \_\_\_\_\_

CHILD'S NAME: \_\_\_\_\_

Created by the Math Department, Public Schools of Brookline, Revised Spring 2010

# Brookline's First Grade Calendar - August

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Jump 3 times, once like a bunny, once like a frog, and once like a child. Measure each jump. Which jump was the shortest? Longest?	Play a game with a friend.  Practice counting backwards from big numbers. Start at 27. Try starting at 40.	Play the same game again with a friend.  Did you use a strategy? Tell someone about it.	How many utensils do you think you have? Make a picture graph to show how many forks, knives, and spoons you have in your utensil drawer.	Make a picture using 1 circle, 2 triangles, and a shape with 4 sides. Does it have a vertical/horizontal line of symmetry?	Write your first and last name. How many letters in each? How many more letters in your long name than in your shorter one? *If A =1, B= 2, C= 3 ...Z= 26, what is your first name worth?	As you walk or drive in the car, try to find all the numbers 0,1,2,3...in order. How many do you see along the way? How high can you go?
Play <b>Compare</b> with a friend.  What number comes right after 15? Right before 30? Before and after 20?	Play <b>Double Compare</b> with a friend. What is your strategy for comparing the total of two cards?	Start a collection of rocks or shells. Estimate how many fit in your hand? How many fit in an adult's hand? Count to check.	Try a game like basketball, bowling, or mini golf. Help keep score. Who had the most points? Is that the winner?	Play <b>Bobbie Bear</b> on the web. ♦ <b>Choose: Customize</b> How many outfits can you make with 2 shirts and 3 pants? ♦ illuminations.nctm.org Click on ACTIVITIES. K-2. Search.	When you go out, count how many people are wearing shorts and long pants and compare. Why might that change on another day?	Read <u>Ten Flashing Fireflies</u> by Philemon Sturges. Instead of fireflies in a jar, count the veggies going into your mouth tonight.
Tell a friend a story problem to go with 3+2. Then try a story to go with 5-2.	Play <b>Ten Frame</b> on the web. ♦ Games: <i>Fill a Frame</i> Record all the number sentences with a sum of ten. ♦ illuminations.nctm.org Click on ACTIVITIES. K-2. Search.	Play a game with a friend. Try counting by tens forward and backward.	Play the same game again with a friend. What about the game is mathematical?	Look at a calendar. How many days are left until school begins? How many weeks? Predict how many will be sunny, rainy, snowy or cloudy. Can you find a way to keep track?	Read <u>Two Ways to Count to Ten</u> by Ruby Dee  How many ways can you count to ten?	Make a list of all the 2D and 3D shapes you can think of. Go on a scavenger hunt looking for those shapes. Check off the shapes you find.
With chalk, make a repeating pattern design on a sidewalk or driveway near you. Ask an adult first. How many times did you repeat your pattern?	Use different shaped containers and wet sand or dirt to build a repeating pattern design. Can you label the pattern? ABAB; AABAAB; ABCABC	Play <b>Bobbie Bear</b> on the web♦ again <b>Choose: Customize</b> How many outfits can you make with 3 shirts and 3 pants? ♦ illuminations.nctm.org Click on ACTIVITIES. K-2. Search.	Play a board game that uses dice.  Practice your facts that equal 6. 5+1, 4+2, 3+3, are there more?	Play a board game that uses dice again. Does any one of the numbers get rolled more than others?	Can you draw a picture and write a number sentence to show your work?	Play the game <b>Collect 20¢</b> How many nickels can you use to make 20¢? How many pennies? How many dimes?

PARENT SIGNATURE: \_\_\_\_\_

CHILD'S NAME: \_\_\_\_\_

## ***DIRECTIONS FOR GAMES TO PLAY WITH FRIENDS OR FAMILY***

### **Compare:**

Materials: Deck of Number Cards 0-10 (or playing cards with face cards removed)

Object: Decide which number is largest.

How to Play: Divide all the cards evenly among the players. Each player puts out one card. The player with the largest number takes all the cards.

Variations: •The player with the smallest number gets all the cards.

- The players all keep their own cards but the one with the largest (or smallest) number says “Me”.
- Add wild cards to the deck. The player putting out a wild card can make it any digit (0-9).

### **Double Compare:**

Materials: Deck of Number Cards 0-10 (or playing cards with face cards removed)

Object: Decide which total is greatest.

How to Play: Divide all the cards evenly among the players. Each player puts out **two** cards simultaneously. Each player announces his/her total.

The player with the greatest total takes all the cards.

Variations: •The player with the smallest total gets all the cards.

- The players all keep their own cards but the one with the largest (or smallest) total says “Me”.
- Add wild cards to the deck. The player putting out a wild card can make it any digit (0-9).
- Triple compare: Players each turn over 3 cards on a turn and add all 3 to find the total.

### **Collect 20¢:**

Materials: Coins (pennies, nickels dimes), one die.

Object: Add on to your coin totals until you get to the decided amount.

How to Play: Decide on an amount of money to collect (15¢, 20¢, 25¢, 50¢). Players take turns rolling the die. The player announces the number rolled and takes that number of pennies. The next player rolls and adds his/her pennies to the collection. You can trade in pennies for nickels or dimes as you go along. The game is over when the collection equals the decided amount.

### **Turn Over 10**

(This game is a variation of Memory or Concentration)

Materials: Deck of Number Cards 0-10 (or playing cards with face cards removed)

Object: Find as many combinations of two cards that equal 10.

How to Play: Place all the cards face down on a table in a rectangular arrangement (an array). Players take turns turning over two cards. If the two cards add together to make 10, the player keeps the pair. If the cards do not make 10, the player turns them back over. The game ends when all possible combinations have been taken.

Variations: •Turn Over 6 – Use only 0-6 cards and turn over pairs of cards that total 6.

- Use more than 2 cards to get to 10. If the first two cards turned over equal a number smaller than 10, the player continues to turn over cards until s/he reaches 10 or goes over. Note: This variation usually results in cards left behind which do not make combinations to 10.